



Dell Latitude D820 Shuts Down For Unknown Cause.

This troubleshooting page will cover necessary troubleshooting steps that may be necessary to identify sporadic shutdowns.

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INTRODUCTION

In this guide we will be showing you how to identify potential devices or components which may be overheating causing shutdowns.



TOOLS:

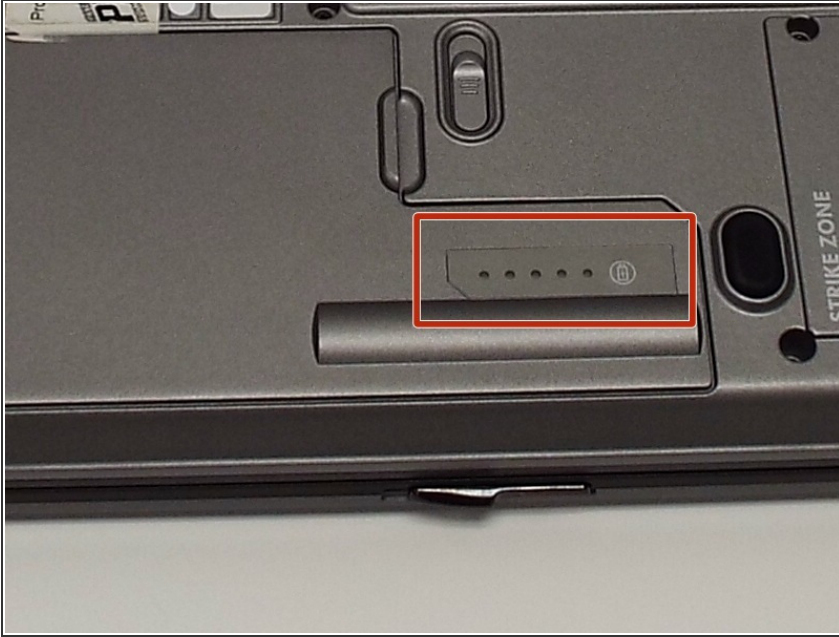
- [Compressed Air](#) (1)
-

Step 1 — Dust, Battery, Fan, Thermal Paste, GPU



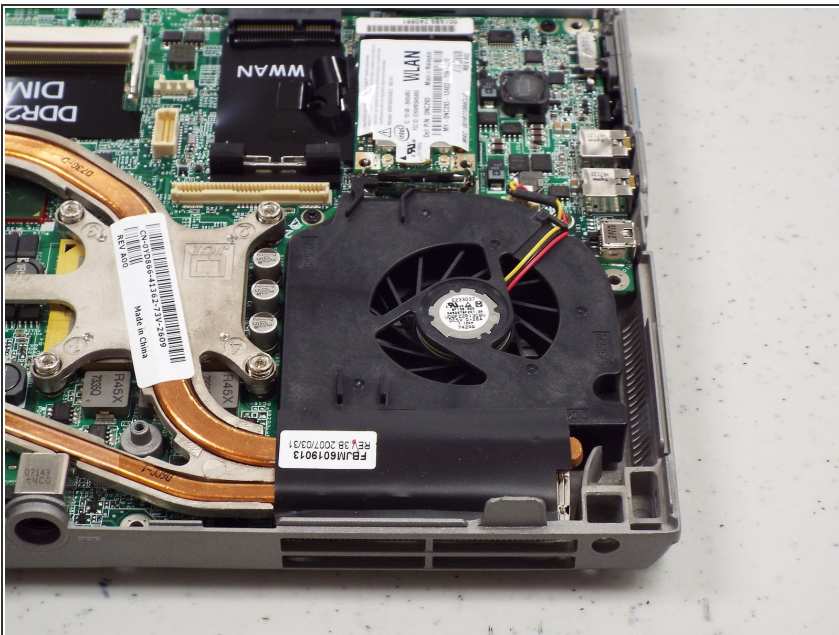
- Dust acts like an insulator and contains moisture which can affect computer components if left over time.
- Turn off computer and unplug AC adapter.
- Use a can of compressed air to remove dust from vents, fan and power supply fan.
- Removing dust should be considered routine maintenance and done on a regular basis.

Step 2



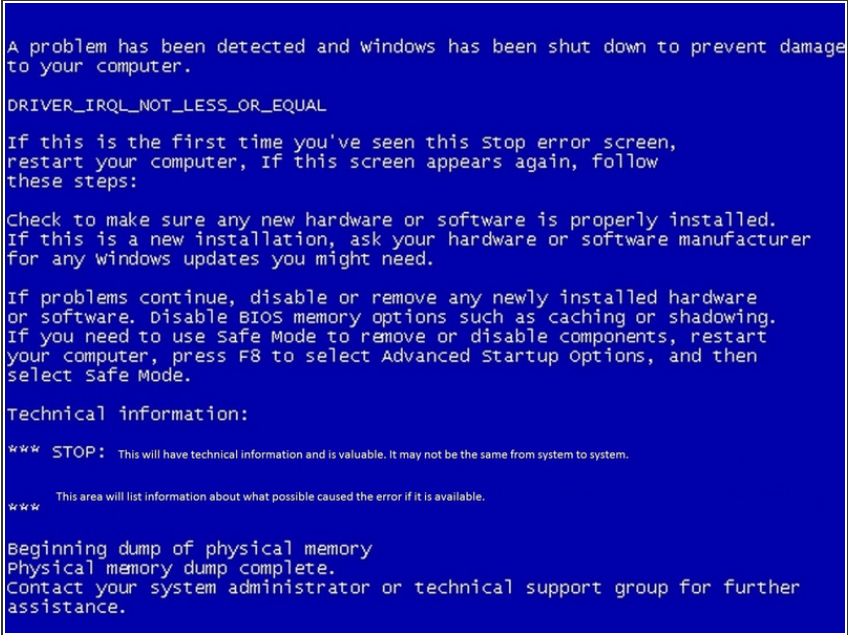
- Although a dead battery won't cause the laptop to overheat, it will cause it to shutdown unexpectedly.
- Make sure battery connection is secure.
- Make sure the Adapter is properly plugged into the wall and laptop.
- Dell batteries come with a battery life indicator located on the bottom of the laptop. Press and release the test button. Each lights represent a 20% charge. If no lights are present, replacing the battery may be necessary.
- [Dell Latitude D820 Battery Replacement](#)

Step 3



- If the fan is not working properly the laptop will overheat and shutdown.
- Look to see if fan is spinning and dust free.
- Go into Control Panel/ System/Device Manager/System Devices/and look for the fan. Right click on properties to see if the device is working properly.
- Replace fan if necessary.

Step 4



A problem has been detected and windows has been shut down to prevent damage to your computer.

DRIVER_IRQL_NOT_LESS_OR_EQUAL

If this is the first time you've seen this Stop error screen, restart your computer. If this screen appears again, follow these steps:

Check to make sure any new hardware or software is properly installed. If this is a new installation, ask your hardware or software manufacturer for any windows updates you might need.

If problems continue, disable or remove any newly installed hardware or software. Disable BIOS memory options such as caching or shadowing. If you need to use Safe Mode to remove or disable components, restart your computer, press F8 to select Advanced Startup options, and then select Safe Mode.


Technical information:

*** STOP: This will have technical information and is valuable. It may not be the same from system to system.

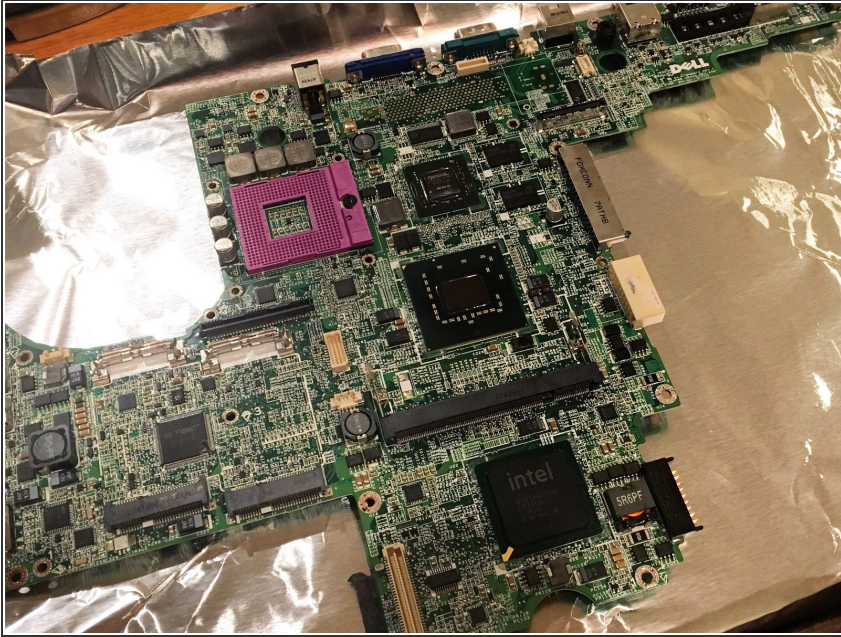
*** This area will list information about what possible caused the error if it is available.

Beginning dump of physical memory
Physical memory dump complete.
Contact your system administrator or technical support group for further assistance.

- Blue Screen of Death (BSOD)
- BIOS - out of date temperature table can cause heat issues.
- Check the Dell website and download the latest BIOS.
<http://www.dell.com/support/home/us/en/1...>

 This photo has been modified to express generalized message on BSOD. The two lines *** are the ones that have been modified.

Step 5 — GPU Reflow



- If you've gotten here, you most likely have an issue with your GPU due to this recall: [Dell Blog Post about NVIDIA GPU Recall](#)
- To fix this, you can try to "re-flow" the solder on the motherboard, which should give you a little more life out of the laptop.
- Follow this guide to remove your motherboard: [D820 Motherboard Removal](#)
- Once you have removed the motherboard, clean off all of the thermal paste from the two remaining chips, one NVIDIA GPU, and another Intel.
- Also remove all stickers, foam, and plastic from the motherboard, as they will melt or catch fire in the next step
- Pre-heat your oven to 395 degrees Fahrenheit.
- Place the motherboard on a sheet of foil, on a baking sheet. Place into the oven for 10 minutes. Then remove and let cool
- Re-assemble laptop following motherboard steps in reverse.

To reassemble your device, follow these instructions in reverse order.

